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ABSTRACT

The problems, procedures, and benefits of case-study program evaluation are investigated. An evaluation plan that included several data collection methods (document review, interview, content analysis, attitude questionnaire survey, sociogram analysis) and emphasized the role of the evaluator as participant-observer, collector and synthesizer of information, and case writer was developed. This plan was then applied to evaluate the Gordon College faculty development program at the end of its first year of operation. The case study method presents a narrative, story-like report that is interspersed with traditional evaluation information. The importance of the role of the evaluator and skills that the job requires are discussed. Evaluator bias, defining parameters, and writing and organizing the case are detailed. It is suggested that case study program evaluation has great potential for widespread use. Related areas that warrant further investigation are proposed. (Author/SF)

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AN INVESTIGATION OF CASE STUDY AS AN APPROACH TO PROGRAM EVALUATION

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Abstract

This paper presents an investigation of the case study approach to program evaluation. An evaluation plan that included several data collection methods (document review, interview, content analysis, attitude questionnaire survey, sociogram analysis) and emphasized the role of the evaluator as participant observer, collector and synthesizer of information, and case writer was developed. This plan was then applied to evaluate the Gordon College faculty development program at the end of its first year of operation (January 1976-January 1977). Based on the experience of conducting a case study evaluation, the procedures, problems and benefits of this approach are discussed.

Although arguments exist in support of case study evaluation in education, little systematic research has been done until recently to investigate its problems, solutions, and benefits. From January, 1976 to January, 1977 an evaluation of a faculty development program, in which case study was used, was conducted at Gordon College. The major purpose of this paper is to describe this evaluation.

Context of the Study

Gordon College, a small private liberal arts college located in Wenham, Massachusetts, received a grant of $127,000 from the W. K. Kellogg Foundation in 1976. The grant was in partial support of a faculty development program defined primarily by Individual Development Plans. These plans, commonly called growth contracts, may be described as:

> A written commitment by participants to a self-designed course of action for development. The plan is usually defined annually and includes objectives, together with a statement of how the objectives will be attained and assessed.

Although the original Kellogg proposal stipulated that there would be an external evaluation at the end of the first, third, and sixth year of program operation, it did not stipulate what the design of the evaluation should be, nor what specific questions should be addressed. Since the evaluation design was unspecified, the writer (selected by Gordon College as the external evaluator) chose the responsive approach to evaluation. In addition, the writer wanted to investigate case study. Therefore, with consent of the client, this format was selected.

Case Study

Responsive evaluators such as Robert Stake, Barry MacDonald and Malcolm Parlett, gather expressions of worth from various individuals whose points of view may differ and report their findings in narratives, portrayals, graphs, etc. Stake (1975) defined responsive evaluation as "evaluation based on what people do naturally to evaluate things: they observe and react" (p. 10). These responsive

evaluators, like case study evaluators, essentially believe that their job is to describe programs by illuminating issues, portraying people and events and describing processes so that the reader of the report will know what it would be like to participate in a particular program. Responsive evaluators, as well as case study evaluators, also emphasize a "naturalistic" approach in which the evaluation is carried out under field conditions rather than experimentally controlled conditions. Parlett, Jamieson, and Pocklington (1977) maintain that responsive evaluations tend to be

> holistic; are process rather than product oriented; are carried out under naturalistic or "field" conditions instead of under contrived "laboratory-type" experimental conditions; extensively use both observational and interview technique; give less than usual prominence to quantitative measurement procedures; and are concerned with the way in which educational phenomena, practices, and policies are influenced by wider social and institutional contexts. (p.32)

Recently, many responsive evaluators such as Robert Stake (1976, 1977); Barry MacDonald and Rob Walker (1975); and David Hamilton (1976) have also become interested in educational case study evaluation. Case study has been variously defined in the research literature. MacDonald and Walker (1975), for example, define case study as "the examination of an instance in action" (p.2). Labovitz and Hagedorn (1971) define case study as "the observation of one population or sample at one point in time" (p. 61). They contend that the major purpose of the case study design is to describe a unit, rather than to test a hypothesis. Rob Walker (1974a) argues that "case study research attempts to reach understanding through the detailed study and portrayal of individual instances, persons, ideas, events" (p. 21).

Like the responsive evaluator, the case study evaluator is primarily con-

cerned with description and portrayal. Walker (1974b) argues that case study reveals "what institutions mean to individuals (and) helps us get beyond form and structure to the realities of human life" (p. 68). Both the responsive and the case study evaluator emphasize intents, processes, participants, issues, values, and settings. Both utilize data gathering techniques that are traditionally associated with other areas, i.e., participant observation, fieldwork methods and ethnographic methodology, for example. However, what is lacking in the literature is a clear connection between these two approaches to evaluation.

While this writer agreed initially with the above definitions and descriptions, the close association between case study and responsive evaluation became clear only as the planning and development of the Gordon College case study evaluation progressed. In fact, case study emerged as the framework for the Gordon College evaluation which enabled the writer to transmit the findings of the evaluation. These findings were based on the information gathered through multiple data collection methods specifically chosen for the evaluation and similar to those utilized by the responsive evaluator. Case study itself, however, is not a method because there is no specific technique associated with it other than the methods the evaluator chooses to utilize when collecting data for the case. Case study was therefore viewed as a way of organizing data in a chronological, narrative report so that the unitary character of the program was preserved. The primary focus of the Gordon College evaluation was to give insight into specific instances, events or situations through the detailed analysis of the faculty development program during its first year of operation.

Although this paper describes the procedures and methods that were used for the Gordon College evaluation, the reader should remember that like responsive evaluation, case study is "highly flexible, being applied in individual ways to the circumstances of each study" (Parlett, 1977, p. 103). This

means that the setting and circumstances determine the design and methods of the evaluation which may change from case to case.

A Brief Overview of the Gordon College Evaluation

The initial step in the Gordon College evaluation was to define the questions that needed to be answered by the evaluation. Through a cooperative, negotiative effort by the external evaluator and the client, the following areas were chosen as a focus for the evaluation: (1) the content of Individual Development Plans; (2) the attitude of participants toward the faculty development program; (3) the participant's Advisory Committee composition and function; and (4) the problems and benefits of the program. Although these four areas became the themes of the case and although the data collected around the themes became the content of the case, the writer also collected information that would enable her to reconstruct the program, including the events that led to its development and implementation.

In order to provide information to the client in the areas chosen, multiple data collection methods, both qualitative and quantitative, were selected. The writer also spent twenty-one days on the Gordon College campus collecting information and interacting with program participants and decision makers.*

The following methods were used to collect information for the evaluation:

(1) Documents pertaining to the development and implementation of the faculty development program were reviewed. Such documents included memos, files, evaluation forms, faculty minutes, proposals for funding, and reports of Advisory Committees.

(2) Interviews were conducted with program decision makers and faculty

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*Decision makers are those people who have major decision-making authority regarding the program that is being evaluated.

development participants. In all, fifty-seven participants and the seven decision makers were interviewed according to an unstructured "focused" interview formalized by Merton and Kendall (1942). Following the interviews, there was a modified content analysis of the data.

(3) A content analysis of all Individual Development Plans (N=39) was conducted. The intent was to describe the content of these plans by developing categories that would describe specifically the strengths and weaknesses of the participants; the collective faculty development goals and objectives; the means by which goal attainment was planned; and the evidence that would be used to support goal attainment.

(4) Sociograms were constructed in order to analyze the relationships between faculty development participants and their selection of Advisory Committee members.

(5) An attitude questionnaire, composed of thirty-one items was administered to all Individual Development Plan participants to measure their attitude (favorable/unfavorable) toward the program.

(6) In-depth interviews were conducted with two Individual Development Plan participants to collect information about the process of participation in the Gordon College program.

(7) Field notes were kept and frequently referred to during the evaluation and the actual writing of the case.

Evaluator's Role in Case Study

The following figure represents the concept of case study as outlined in this paper.

Insert Figure 1 about here.

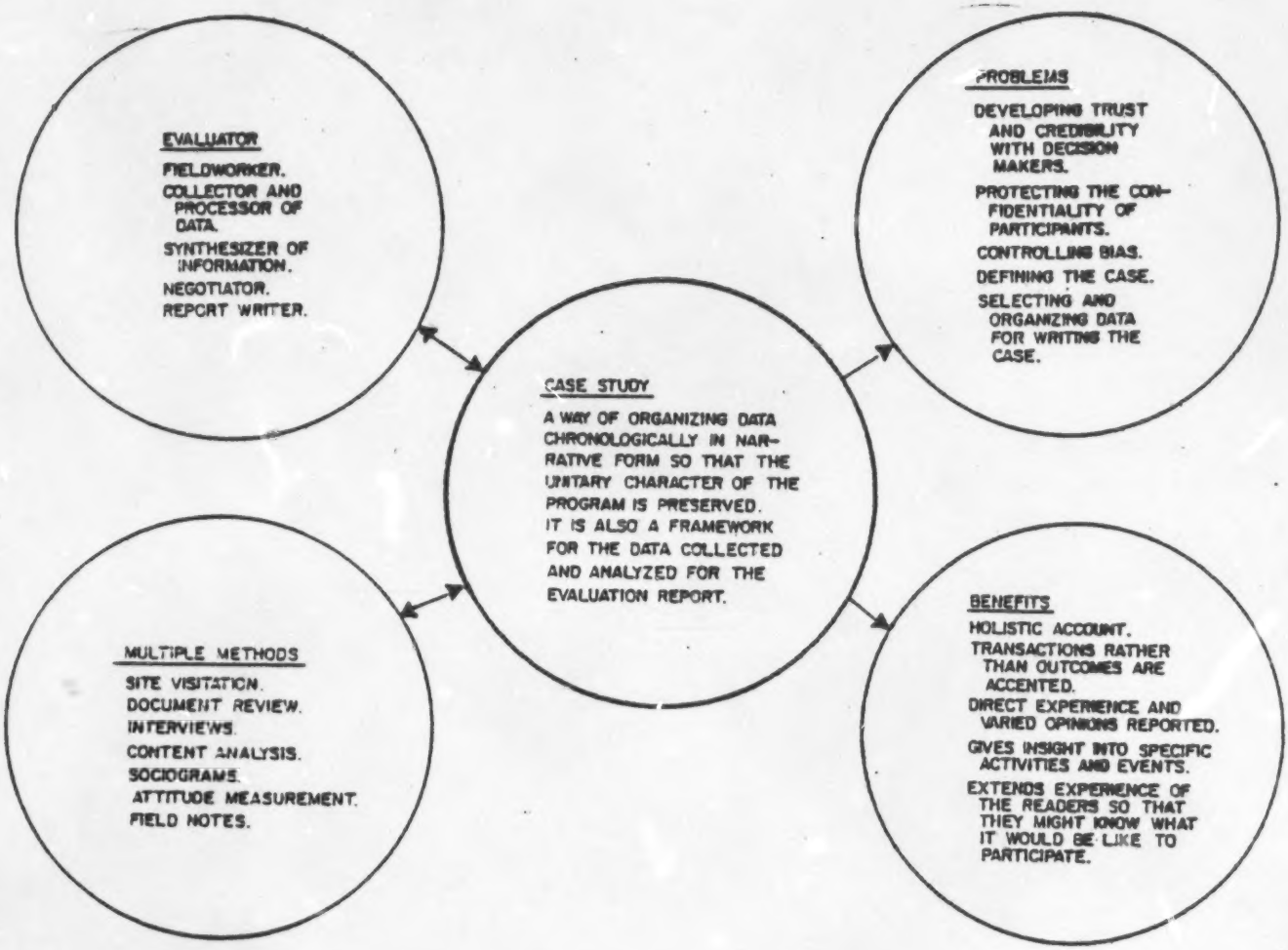
EVALUATOR
FIELDWORKER.
COLLECTOR AND PROCESSOR OF DATA.
SYNTHESIZER OF INFORMATION.
NEGOTIATOR.
REPORT WRITER.
CASE STUDY
A WAY OF ORGANIZING DATA CHRONOLOGICALLY IN NARRATIVE FORM SO THAT THE UNITARY CHARACTER OF THE PROGRAM IS PRESERVED. IT IS ALSO A FRAMEWORK FOR THE DATA COLLECTED AND ANALYZED FOR THE EVALUATION REPORT.
PROBLEMS
DEVELOPING TRUST AND CREDIBILITY WITH DECISION MAKERS.
PROTECTING THE CONFIDENTIALITY OF PARTICIPANTS.
CONTROLLING BIAS.
DEFINING THE CASE.
SELECTING AND ORGANIZING DATA FOR WRITING THE CASE.
MULTIPLE METHODS
SITE VISITATION.
DOCUMENT REVIEW.
INTERVIEWS.
CONTENT ANALYSIS.
SOCIOGRAMS.
ATTITUDE MEASUREMENT.
FIELD NOTES.
BENEFITS
HOLISTIC ACCOUNT.
TRANSACTIONS RATHER THAN OUTCOMES ARE ACCENTED.
DIRECT EXPERIENCE AND VARIED OPINIONS REPORTED.
GIVES INSIGHT INTO SPECIFIC ACTIVITIES AND EVENTS.
EXTENDS EXPERIENCE OF THE READERS SO THAT THEY MIGHT KNOW WHAT IT WOULD BE LIKE TO PARTICIPATE.

Figure 1. Case study evaluation plan.

As indicated in the above figure, the evaluator's role is of central importance to the evaluation because this person is the fieldworker, collector and processor of data, synthesizer of information, negotiator and report writer. The case study evaluator is the person who must bring together all elements of the evaluation into a coherent, comprehensive whole. In addition, since both qualitative and quantitative methods are used to collect information for the case, the evaluator must be well acquainted and facile with a variety of techniques including content analysis, statistics, participant observation, and so on.

Furthermore, the evaluator's ability to write for multiple audiences is of utmost importance. Thus, the Gordon College report is directed at program decision makers and participants in a language and style that is intended to be maximally comprehensible. The conventional report style, in which a few variables are identified, differences described and distribution tables displayed, is abandoned in favor of a narrative, story-like report style which is interspersed with traditional evaluation information.

Problems and Suggested Solutions

A. Developing a relationship of trust and open communication. Decision makers and program participants are essentially "gatekeepers" of the data the evaluator needs to collect in order to conduct a case study evaluation. If the evaluator does not receive access to all pertinent data, the evaluation may be inadequate or grossly incomplete.

On the basis of the Gordon College experience, trust and open communication between program participants and evaluator seem to be an important precondition for data access. Therefore, the following observations are offered for other evaluators who may wish to test their applicability and usefulness in establishing trust and openness in case study situations.

(1) The evaluator should spend extended periods of time on site. Mutual trust required in evaluation, and especially case study evaluation, takes time to create; extended fieldwork allows program participants and the evaluator and opportunity to observe each others behavior.

(2) The case study evaluator should become involved with the people at the institution, yet must at the same time preserve independent status. "Perhaps the ideal fieldworker would be a person who learned to behave in a natural and predictable manner, involved but not strongly involved" (Beal, 1970, p. 34).

(3) The evaluator should strive for a relationship with decision makers and program participants that is flexible and non-judgmental. Throughout the Gordon College evaluation, the evaluator attempted to maintain a non-judgmental posture. The final report essentially presents the judgments of program personnel and the locus of judgments, as well as the responsibility for effecting program change, lies with the decision makers.

(4) The evaluator should take the initiative to communicate findings and discuss problems with decision makers throughout the evaluation. In addition, the decision makers should be asked to respond to the usefulness of the information supplied in terms of their plans for program improvement.

B. Confidentiality. Because case studies rely heavily on personal observation and testimony, the participants must feel secure about an evaluator's ability to remain objective, to exercise sound judgment, and to protect their confidentiality. The evaluator should remember that

> case studies are public documents about individuals and events. They are identifiable at least to those involved and usually to wider audiences. They have consequences for the lives of those portrayed as well as for the reader. (MacDonald and Walker, 1975, p.8)

In the Gordon College evaluation, the following practices were established by the evaluator and program decision makers to ensure confidentiality.

(1) Interviews were preceded by a letter which stated that the interviews would be kept confidential (that is, not used in the final report or other evaluation documents unless specific permission was obtained).

(2) All raw data was retained and used exclusively by the evaluator.

(3) Field notes were not shared with any member of the Gordon College community.

(4) Information that was collected and shared with decision makers for the purpose of program improvement, excluded names.

(5) Only aggregate numbers were reported in the summary of responses to interview questions. All names or identifying labels were removed.

(6) Materials from the two in-depth interviews used in the final report were reviewed by those involved for accuracy.

(7) Participants were assigned code numbers for the sociogram and content analysis so that they could not be identified.

(8) Appendices to the evaluation report included only materials that were reviewed and approved by the Dean of Faculty and the Faculty Development Committee.

C. Evaluator bias. A case study evaluator who relies heavily on qualitative data, extended fieldwork and interaction with program participants, must continually be aware of the potential for evaluator bias. The following tactics for controlling bias and/or exposing bias, were used in the Gordon College evaluation.

(1) Multiple methods, including both so-called qualitative and quantitative methods were used to collect evaluation information. This "triangulation" approach is helpful in checking for bias since different techniques are used to illuminate the various areas of concern to the evaluator. Eventually, the evaluator will encounter the same emerging themes

data obtained from several methods. Stake (1977) argues that "understanding comes with repeated encounter. Something worth knowing needs to be looked at from several points of view. Even in the greatest ambiguity, that of substance emerges on repeated probing" (p. 160).

(2) A modified content analysis of interview data was conducted to objectify the responses of the interviewees.

(3) All Individual Development Plans were content analyzed and checked for reliability by an independent rater.

(4) The Dean of Faculty and the Faculty Development Committee were asked to review data throughout the evaluation. Their comments and criticisms were used by the evaluator to check for bias.

(5) The two interviewees that consented to in-depth interviews were asked to review the summaries and add marginal comments about inaccuracy or misrepresentation. These comments were included with the interview summaries in the final report.

(6) The draft report was distributed for comments and criticisms. In addition, the final report was discussed with participants and decision makers to make sure there was mutual understanding about its content and to clarify areas of uncertainty or answer questions.

(7) Within the report itself, the evaluator included information that was meant to expose the biases of the evaluator and thereby help the reader weigh the accuracy and truthfulness of the report. For example, the report included a description of the evaluator's approach to evaluation as well as several statements by participants describing their perceptions of the evaluator.

D. Defining the case. Of considerable importance to the case study evaluator is defining the "bounded system" (Louis Smith's term) or the time parameters for the case. Perry and Perry (1969) argue that case study has no real beginning or end because it is an account of real life situations, predicaments and human relationships

in which the ends are not neatly tied up. Although case studies may not, philosophically speaking, have a beginning or an end, the evaluator must define the boundaries of the case. In other words, the evaluator must determine what will be included in the case, when to begin the recounting of events, and when to end the case. As an illustration, the time period defined in the Gordon College case study is actually longer than the one year for which the evaluator was commissioned. The Gordon College case begins with a description of the events that led to the development and implementation of the program, and it ends with the evaluator's last formal contact with program participants. This does not mean, however, that this is the end of faculty development at Gordon College, but rather the evaluator's judgment about when to stop telling the story.

The case is also defined by the areas selected for study as well as the methods used to collect data and, therefore, content for the case. For example, if the evaluator chooses only to interview program participants to collect information, the content of the case may be limited to only one source of information. Finally, the case is defined by decisions and judgments as to what specifically to select for inclusion from the data that has been collected.

E. Writing and Organizing the Case. Three major concerns the evaluator will face when the process of writing the report begins are deciding how to tell the story, organizing the case, and selecting data for inclusion in the case.

Deciding how to tell the story: At Gordon College, one of the purposes of the case study evaluation was to reconstruct the story of the first year of operation of the faculty development program, as well as the events that led to its implementation. In addition, the client and evaluator had decided that there were four areas of concern in which evaluation information would be collected. (Refer to page 5 of this paper.) Therefore, the evaluator collected and analyzed data according to developed research procedures. She also included other information that was of a purely descriptive nature. When the process of writing the case report began, how-

ever, the evaluator was faced with a decision as to how to distinguish between these two types of information by using two voices and two typescripts.

The first voice, in regular typescript, is that of the more traditional evaluator who speaks directly about matters that can be substantiated with little dispute - the reporter of factual and scientific information. The second voice, set in script type was the personal voice of the evaluator - the describer, the storyteller. This technique is illustrated in the following example.

Traditional Voice

> A tally of the final evaluations completed and submitted by 33 Individual Development Plan participants showed that of the 155 goals that were identified by the content analysis, 77 goals were reported as substantially fulfilled, 47 partially fulfilled, and 9 goals were not fulfilled.

Descriptive Voice

> *Although I had met the Dean briefly during my earlier meeting with the President, he was new to the institution then and appeared to be still finding his way around. Within the few months that had elapsed he seemed to have become a well-informed, knowledgeable member of the Gordon College community. I imagined he was in his mid-thirties and I knew that this was his first position as Dean of Faculty.*

Organizing the case: Organizing the case report is particularly difficult for the evaluator because of the vast amount of data that is collected. The 200 pages of field notes that were diligently written throughout the Gordon College evaluation were particularly useful in developing an outline for the organization of the case. The field notes were also used to guide the process of chronological reconstruction by helping the evaluator remember and identify significant incidents, as well as the critical program issues and decisions.

Selecting data for inclusion in the report: Once the actual writing begins, the case study evaluator will have to make judgments about what to include. This means that the evaluator will have to sift through, condense, and pull out a few

significant pieces of information from the data that has been collected. This process, however, is not unique to case study. All evaluations require judgment at every stage from selecting samples and constructing questionnaires, to presenting findings in a final report. Evaluators need to develop guidelines to govern the process of judgment or, at least, expose it to others within the context of the evaluation report. For example, in reporting the results of the attitude questionnaire administered at Gordon College, only the mean values for all participants and an analysis of the items that separated the more favorable from the less favorable group were formally presented in the final case study report. This decision was made: (1) because this evaluator wanted the report to be understandable to multiple audiences; and (2) because the constraints of space prohibited the evaluator from including all of the information from the attitude questionnaire.

Concluding Remarks

This study begins to investigate the problems, procedures and benefits of case study program evaluation. The plan that was used at Gordon College is presented here with the hope that others will continue to investigate its potential as well as to continue seeking solutions to the myriad of problems that surround case study. In particular, the following areas warrant further investigation:

-What criteria can be used to judge the worth of case study in effecting program improvements?

-What constitutes adequate description in case study?

-What criteria should be used to judge the worth of case study evaluation?

-How effective are multiple methods of data collection in helping the evaluator reconstruct a program accurately and truthfully?

-How can the evaluator judge whether perceived openness and trust is real or a facade directed at influencing findings positively?

-What are the risks and payoffs in case study as compared with other approaches to evaluation?

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